WEST Search History

DATE: Thursday, March 20, 2003

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR		
L18	($5valent or combin$) with vaccine same ((respiratory adj syncytial or RSV) and influenz$)	41	L18
L17	($5valent or combin$) with vaccine and vaccine same ((respiratory adj syncytial or RSV) and influenz$)	288	L17
L16	l14 not (l13 l7 l4 l8)	40	L16
L15	l14	47	L15
L14	L12 and (RSV same influenza) same (vaccine or composition)	47	L14
L13	L12 and (RSV and influenza).clm.	4	L13
L12	L10 and l6	361	L12
L11	L10 and l5	593	L11
L10	l1 and (influenz$ with vaccine)	608	L10
L9	L8 and L6	1	L9
L8	L1 and RSV same ((matrix same fusion same attachment) with protein or (G near protein same M near protien and M near protein))	10	L8
L7	L6 and L4	9	L7
L6	L5 and (RSV or respiratory adj syncytial) same influenza same vaccine	440	L6
L5	L1 and influenza	1498	L5
L4	L1 and (((M or matrix) same (F or fusion) same (G or attachment)) with protein) same (vaccine or immunogen$)	31	L4
L3	L1 and (((M or matrix) same (F or fusion) same (G or attachment)) with protein) sme (vaccine or immunogen$)	63718	L3
L2	L1 and ((M or matrix) same (F or fusion) same (G or attachment)) with protein	292	L2
L1	(RSV or respiratory adj syncytial) and vaccine	2582	L1

END OF SEARCH HISTORY

STN Search History

FILE 'HOME' ENTERED AT 10:20:06 ON 20 MAR 2003

FILE 'MEDLINE' ENTERED AT 10:21:19 ON 20 MAR 2003
FILE 'CAPLUS' ENTERED AT 10:21:19 ON 20 MAR 2003
FILE 'BIOSIS' ENTERED AT 10:21:19 ON 20 MAR 2003
FILE 'EMBASE' ENTERED AT 10:21:19 ON 20 MAR 2003
FILE 'SCISEARCH' ENTERED AT 10:21:19 ON 20 MAR 2003

L1 3949 (VACCINE OR IMMUNOG#####) AND (RSV OR RESPIRATORY (A) SYNCYTIAL)

L2 21 L1 AND (((G (5N) PROTEIN) (P) (M (5N) PROTEIN) (P) (F (5N) PROTE IN)) OR (ATTACHMENT (S) FUSION (S) MATRIX (S) PROTEIN#))

L3 13 DUP REM L2 (8 DUPLICATES REMOVED)

L4 235 L1 AND (MULTIVALENT OR MULTI-VALENT OR BIVALENT OR BIVALENT OR COMBIN########) (S) VACCINE

L5 307 L1 AND (MULTIVALENT OR MULTI-VALENT OR BIVALENT OR BI-VALENT OR COMBIN########) (S) VACCINE

L6 76 L5 AND INFLUENZ## (S) (VACCINE OR ANTIG##### OR IMMUNO######)

L7 44 DUP REM L6 (32 DUPLICATES REMOVED)

L8 4 L7 AND (SUBUNIT OR PROTIEN) (S) RSV

L9 1 L7 AND L3

L10 40 L7 NOT L8

L3 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2003 ACS
AN 2002:107148 CAPLUS
DN 136:149986
TI **Respiratory syncytial** virus **vaccine**
IN Parrington, Mark; Sloan, Robert J.; Sales, Valerie; Atkins, Judith; Braendli, Ernst; Luciani, Mathilde; Cornet, Bernard; Carpik, Bruce
PA Aventis Pasteur Limited, Can.
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002009749	A2	20020207	WO 2001-CA1104	20010731
	WO 2002009749	A3	20020418		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2000-221706P P 20000731
AB An **immunogenic** compn. which may be formulated for protection of a host against disease caused by infection by **Respiratory Syncytial** Virus (**RSV**) is provided. The **immunogenic** prepn. comprises at least one protein of **RSV** or at least one **immunogenic** fragment of the at least one protein and is not adjuvanted. The at least one **RSV protein** may be the **F**, **G** or **M protein** from a **RSV** A or **RSV** B strain. The compns. may be stabilized for storage. Methods of immunization using the **immunogenic** prepns. are also provided. An example was given illustrating the prodn. of **RSV** on a mammalian cell line on microcarrier beads in a 150L controlled fermenter.

L3 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2003 ACS
AN 2002:736708 CAPLUS
DN 137:246541
TI Subunit **respiratory syncytial** virus preparation
IN Cates, George A.; Sanhueza, Sonia E.; Oomen, Raymond P.; Klein, Michel H.
PA Can.
SO U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S. 6,309,649.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002136739	A1	20020926	US 2001-950655	20010913
	US 6020182	A	20000201	US 1996-679060	19960712
	WO 9802457	A1	19980122	WO 1997-CA497	19970711

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 6309649 B1 20011030 US 1999-214605 19990503

PRAI US 1996-679060 A2 19960712
WO 1997-CA497 A2 19970711
US 1999-214605 A2 19990503

AB The **fusion (F) protein**, **attachment (G) protein**, and **matrix (M) protein** of **respiratory syncytial** virus (**RSV**) are isolated and purified from **respiratory syncytial** virus by mild detergent extn. of the **proteins** from concd. virus, loading the **protein** onto a hydroxyapatite or other ion-exchange **matrix** column, and eluting the **protein** using mild salt treatment. The **F**, **G**, and **M proteins**, formulated as **immunogenic** compns., are safe and highly **immunogenic** and protect relevant animal models against desease caused by **respiratory syncytial** virus infection. An example is provided illustrating the immunogenicity of the **RSV** subunit prepn. in cotton rats. Cotton rats were immunized with the **RSV** subunit prepns. formulated either with Alum or ISCOM (Iscomatrix). Blood samples were obtained and analyzed for anti-fusion and neutralizing antibodies after the appropriate procedures. In addn. to strong anti-fusion and neutralizing antibodies induction, complete protection against the **RSV** infection was obtained (except in 1 rat), in both the upper and lower respiratory tracts.

L3 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1
AN 2001:792220 CAPLUS
DN 135:330483
TI Subunit **respiratory syncytial** virus **vaccine** preparation
IN Cates, George A.; Sanhueza, Sonia E.; Oomen, Raymond P.; Klein, Michel H.
PA Aventis Pasteur Ltd., Can.
SO U.S., 16 pp., Cont.-in-part of U.S. 6,020,182.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6309649	B1	20011030	US 1999-214605	19990503
	US 6020182	A	20000201	US 1996-679060	19960712
	WO 9802457	A1	19980122	WO 1997-CA497	19970711

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 2002136739 A1 20020926 US 2001-950655 20010913

PRAI US 1996-679060 A2 19960712
WO 1997-CA497 W 19970711
US 1999-214605 A2 19990503

AB The **fusion (F) protein**, **attachment (G) protein** and **matrix (M) protein** of **respiratory syncytial** virus (**RSV**) are isolated and purified from **respiratory**

syncytial virus by mild detergent extn. of the **proteins** from concd. virus, loading the **protein** onto a hydroxyapatite or other ion-exchange **matrix** column and eluting the **protein** using mild salt treatment. The **F**, **G** and **M** **proteins**, formulated as **immunogenic** compns., are safe and highly **immunogenic** and protect relevant animal models against decreased caused by **respiratory syncytial** virus infection.

RE.CNT 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2003 ACS
AN 2000:420985 CAPLUS
DN 133:57573
TI Multivalent **immunogenic** composition containing **RSV** subunit composition and influenza virus preparation
IN Cates, George A.; Sambhara, Suryaprakash; Burt, David; Klein, Michel H.
PA Connaught Laboratories Limited, Can.
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000035481	A2	20000622	WO 1999-CA1194	19991216
WO 2000035481	A3	20001026		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1140164	A2	20011010	EP 1999-957825	19991216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRAI US 1998-213770 A 19981217
WO 1999-CA1194 W 19991216

AB **Immunogenic** compns. for administration to adults, particularly to the elderly, to protect them against disease caused by infection by **respiratory syncytial** virus and by influenza virus comprise an immunoeffective amt. of a mixt. of purified **fusion** (**F**) **protein**, **attachment** (**G**) **protein** and **matrix** (**M**) **protein** of **RSV** and an immunoeffective amt. of a non-virulent influenza virus prepn. The components of the compn., when formulated as a **vaccine** for in vivo administration, do not impair the immunogenicity of each other. The **immunogenic** compn. may also contain an adjuvant.

L3 ANSWER 5 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 2000:356449 BIOSIS
DN PREV200000356449
TI Subunit **respiratory syncytial** virus **vaccine** preparation.
AU Cates, George A. (1); Sanhueza, Sonia E.; Oomen, Raymond P.; Klein, Michel H.
CS (1) Richmond Hill Canada
ASSIGNEE: Connaught Laboratories Limited, Willowdale, CA, USA

PI US 6020182 February 01, 2000
SO Official Gazette of the United States Patent and Trademark Office Patents, (Feb. 1, 2000) Vol. 1231, No. 1, pp. No pagination. e-file. ISSN: 0098-1133.
DT Patent
LA English
AB The **fusion** (**F**) **protein**, **attachment** (**G**) **protein** and **matrix** (**M**) **protein** of **respiratory syncytial** virus (**RSV**) are isolated and purified from **respiratory syncytial** virus by mild detergent extraction of the **proteins** from concentrated virus, loading the **protein** onto a hydroxyapatite or other ion-exchange **matrix** column and eluting the **protein** using mild salt treatment. The **F**, **G** and **M proteins**, formulated as **immunogenic** compositions, are safe and highly **immunogenic** and protect relevant animal models against **respiratory syncytial** virus.

L3 ANSWER 6 OF 13 MEDLINE DUPLICATE 2
AN 2001027709 MEDLINE
DN 20451120 PubMed ID: 10993942
TI DNA encoding the attachment (G) or fusion (F) protein of **respiratory syncytial** virus induces protection in the absence of pulmonary inflammation.
AU Bembridge G P; Rodriguez N; Garcia-Beato R; Nicolson C; Melero J A; Taylor G
CS Institute for Animal Health, Compton, Newbury, Berkshire RG20 7NN, UK
Centro Nacional de Biologia Fundamental, Instituto de Salud Carlos III, Majadahonda, 28220 Madrid, Spain.. Gary.Bembridge@bbsrc.ac.uk
SO JOURNAL OF GENERAL VIROLOGY, (2000 Oct) 81 (Pt 10) 2519-23. Journal code: 0077340. ISSN: 0022-1317.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200011
ED Entered STN: 20010322
Last Updated on STN: 20020212
Entered Medline: 20001115
AB Significant protection against **respiratory syncytial** virus (**RSV**) infection was induced in mice vaccinated intramuscularly (i.m.) with DNA encoding the **F** or **G** **protein** of **RSV**. The amounts of IgG1 of IgG2a antibodies in mice immunized with DNA-G alone were similar. However, the antibody response in mice co-immunized with DNA-G and DNA encoding IL-4 (DNA-IL-4) was strongly biased towards IgG1. In contrast, the antibody response in mice co-immunized with DNA-G and DNA-IL-2, -IL-12 or-IFN-gamma was biased towards IgG2a. Mice vaccinated with DNA-F either alone or in combination with DNA encoding cytokines developed a predominant **RSV**-specific IgG2a response, which was most pronounced in mice co-immunized with DNA-F and DNA-IL-12 or -IFN-gamma. Vaccinated mice developed only a slightly enhanced pulmonary inflammatory response following **RSV** challenge. More significantly, and in contrast to mice scarified with recombinant vaccinia virus expressing the **G protein**, mice vaccinated i.**m**. with DNA-G did not develop pulmonary eosinophilia, even when the immune response was biased towards a Th2 response by co-administration of DNA-IL-4.

L3 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2003 ACS
AN 1999:450822 CAPLUS

DN 131:101251
TI Recombinant fowlpox viruses and uses thereof
IN Cochran, Mark D.; Junker, David E.
PA Syntro Corp., USA
SO U.S., 61 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5925358	A	19990720	US 1995-484575	19950607
	WO 9419015	A1	19940901	WO 1994-US2252	19940228
	W: AU, CA, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9895216	A1	19990128	AU 1998-95216	19981203
	AU 727278	B2	20001207		
PRAI	US 1993-24156	B1	19930226		
	WO 1994-US2252	A2	19940228		
	AU 1994-62749	A3	19940228		

AB This invention provides a recombinant fowlpox virus comprising a foreign DNA sequence inserted into the fowlpox virus genomic DNA, wherein the foreign DNA sequence is inserted within a 2.8 kB EcoRI fragment of the fowlpox virus genomic DNA and is capable of being expressed in a fowlpox virus infected host cell. The foreign DNA encodes antigenic polypeptide of hepatitis B core or surface **protein**, equine influenza virus neuraminidase or hemagglutinin, equine herpesvirus type 1 glycoprotein B or D, hog cholera virus glycoprotein E1 or E2, swine influenza virus hemagglutinin or neuraminidase or **matrix** or nucleoprotein, pseudorabies virus glycoprotein B or C or D, PRRS virus ORF7, infectious bovine rhinotracheitis virus gE, bovine **respiratory syncytial** virus **attachment protein** or **fusion protein** or nucleocapsid **protein**, bovine parainfluenza virus type 3 **fusion protein** or hemagglutinin neuraminidase, etc. The invention further provides homol. vectors, **vaccines** and methods of immunization.
RE.CNT 99 THERE ARE 99 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2003 ACS
AN 1998:71154 CAPLUS
DN 128:139754
TI Subunit **respiratory syncytial** virus **vaccine** preparation
IN Cates, George A.; Sanhueza, Sonia E.; Oomen, Raymond P.; Klein, Michel H.
PA Connaught Laboratories Limited, Can.; Cates, George A.; Sanhueza, Sonia E.; Oomen, Raymond P.; Klein, Michel H.
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9802457	A1	19980122	WO 1997-CA497	19970711
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,				

GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

	US 6020182	A	20000201	US 1996-679060	19960712
	CA 2259594	AA	19980122	CA 1997-2259594	19970711
	AU 9734311	A1	19980209	AU 1997-34311	19970711
	AU 716378	B2	20000224		
	EP 942928	A1	19990922	EP 1997-930274	19970711
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CN 1230197	A	19990929	CN 1997-197862	19970711
	JP 2000501418	T2	20000208	JP 1998-505475	19970711
	BR 9712970	A	20010828	BR 1997-12970	19970711
	US 6309649	B1	20011030	US 1999-214605	19990503
	US 2002136739	A1	20020926	US 2001-950655	20010913
PRAI	US 1996-679060	A	19960712		
	WO 1997-CA497	W	19970711		
	US 1999-214605	A2	19990503		

AB The **fusion** (**F**) **protein**, **attachment** (**G**) **protein** and **matrix** (**M**) **protein** of **respiratory syncytial** virus (**RSV**) are isolated and purified from **respiratory syncytial** virus by mild detergent extn. of the **proteins** from concd. virus, loading the **protein** onto a hydroxyapatide or other ion-exchange **matrix** column and eluting the **protein** using mild salt treatment. The **F**, **G** and **M** **proteins**, formulated as **immunogenic** compns., are safe and highly **immunogenic** and protect relevant animal models against disease caused by **respiratory syncytial** virus infection.

L3 ANSWER 9 OF 13 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
AN 94009584 EMBASE
DN 1994009584
TI Antigenic diversity of **respiratory syncytial** viruses and its implication for immunoprophylaxis in ruminants.
AU Duncan Jr. R.B.; Potgieter L.N.D.
CS Dept. of Environmental Practice, College of Veterinary Medicine, University of Tennessee,Knoxville, TN, United States
SO Veterinary Microbiology, (1993) 37/3-4 (319-341).
ISSN: 0378-1135 CODEN: VMICDQ
CY Netherlands
DT Journal; Conference Article
FS 004 Microbiology
037 Drug Literature Index
LA English
SL English
AB Bovine **respiratory syncytial** virus (BRSV) is a very important pathogen of cattle and perhaps other ruminants. It is a major contributor to the incidence of respiratory tract disease in nursing beef and feedlot and dairy calves. The genome of **respiratory syncytial** viruses encodes 10 proteins translated from 10 unique mRNAs. The major glycoprotein (**G**), fusion **protein** (**F**), 1A **protein** and the 22K **protein** are components of the viral envelope. The nucleocapsid contains the nucleocapsid protein (N), the phosphoprotein (P), and the large **protein** (L). The matrix **protein** (**M**) forms a structural layer between the envelope and the nucleocapsid. Antibodies to all the structural proteins develop in convalescent calves. However, evidence suggests that immunity develops primarily as a result of the antigenic stimulus by the major glycoprotein G and the fusion glycoprotein F. It is known also that activated cytotoxic T cells interact with N and

F protein antigens and helper T cells interact with N, **F**, and 1A **protein** antigens. With the exception of the major glycoprotein, the respective proteins of various **respiratory syncytial** viruses share major antigenic domains. Based on antigenic differences of the major glycoprotein, at least 3 subgroups of **RSV** are recognized; human A, human B, and bovine **RSV**. Indirect evidence suggests that a second subgroup of BRSV exists. However, we have identified only one BRSV subgroup based on our work with RNase mismatch cleavage analysis of the **G protein** gene from a limited number of strains. Furthermore, our data indicated that a caprine **RSV** isolate is closely related to the bovine strains, but an ovine isolate is not. The latter may constitute yet another subgroup of **RSV**. These data affect decisions on optimization of immunoprophylaxis since evidence suggests that protection against a homologous **RSV** subgroup virus is superior to that against a heterologous strain in immune subjects.

L3 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2003 ACS
AN 1992:549246 CAPLUS
DN 117:149246
TI Antibody response of calves to immunoaffinity-purified bovine **respiratory syncytial** virus VP70 after vaccination and challenge exposure
AU Nelson, Lynn D.; Kelling, Clayton L.; Anderson, Gary A.
CS Inst. Agric. Nat. Resour., Univ. Nebraska, Lincoln, NE, 68583-0905, USA
SO American Journal of Veterinary Research (1992), 53(8), 1315-21
CODEN: AJVRAH; ISSN: 0002-9645
DT Journal
LA English
AB Immunoaffinity-purified bovine **respiratory syncytial** virus (BRSV) fusion (**F**) **protein** elicited anti-BRSV-specific antibody responses in BRSV-seroneg. calves. After primary vaccination, all calves seroconverted to BRSV as detd. by the virus neutralization (VN) test and developed anti-**F protein** antibodies detectable by **protein** immunoblot analyses. Subsequent vaccinations induced >2-fold increase in VN titer in 3 of 9 (33%) calves, and 1 calf became VN-neg., but still had nonneutralizing antibody detectable by protein immunoblot anal. This calf remained seroneg. after challenge exposure. Two groups of calves were vaccinated i.**m**. with immunoaffinity-purified BRSV **F protein**. Each dose was 2 mL contg. 20 .mu.**g** of purified **F protein**. Freund's adjuvants were used for all vaccinations, with Freund's complete adjuvant used for the primary vaccination and Freund's incomplete adjuvant for subsequent vaccinations. The **vaccine** was administered to both groups at weeks 0 and 3; the first group received a third vaccination at week 21. Group-1 and -2 vaccinated calves and nonvaccinated contact controls were intranasally aerosol challenge-exposed with low cell culture-passage BRSV on weeks 22 and 9, resp. Eight of 9 vaccinated calves did not develop a humoral anamnestic response following challenge exposure, as demonstrated by VN test and protein immunoblot analyses. Calf 14 from group 1 which had a 1:2 VN antibody titer prior to vaccination, was the only calf that developed an anamnestic response. This suggests that **vaccine** -induced antibodies interfered with the immune response or that the challenge virus (and the virus that calf 14 was infected with before challenge exposure) contained different **F protein** epitopes, compared with the purified **F protein immunogen**.

L3 ANSWER 11 OF 13 MEDLINE DUPLICATE 3
AN 91140764 MEDLINE

DN 91140764 PubMed ID: 1995956
TI **Respiratory syncytial** virus (**RSV**) F, G, M2 (22K), and N proteins each induce resistance to **RSV** challenge, but resistance induced by M2 and N proteins is relatively short-lived.
AU Connors M; Collins P L; Firestone C Y; Murphy B R
CS Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, Bethesda, Maryland 20892.
SO JOURNAL OF VIROLOGY, (1991 Mar) 65 (3) 1634-7.
Journal code: 0113724. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199103
ED Entered STN: 19910412
Last Updated on STN: 19910412
Entered Medline: 19910327
AB The ability of recombinant vaccinia viruses that separately encoded 9 of the 10 known **respiratory syncytial** virus (**RSV**) proteins to induce resistance to **RSV** challenge was studied in BALB/c mice. Resistance was examined at two intervals following vaccination to examine early (day 9) as well as late (day 28) immunity. BALB/c mice were inoculated simultaneously by the intranasal and intraperitoneal routes with a recombinant vaccinia virus encoding one of the following **RSV proteins**: **F**, **G**, N, P, SH, **M**, 1B, 1C, or M2 (22K). A parainfluenza virus type 3 HN protein recombinant (Vac-HN) served as a negative control. One half of the mice were challenged with **RSV** intranasally on day 9, and the remaining animals were challenged on day 28 postvaccination. Mice previously immunized by infection with **RSV**, Vac-F, or Vac-G were completely or almost completely resistant to **RSV** challenge on both days. In contrast, immunization with Vac-HN, -P, -SH, -M, -1B, or -1C did not induce detectable resistance to **RSV** challenge. Mice previously infected with Vac-M2 or Vac-N exhibited significant but not complete resistance on day 9. However, in both cases resistance had largely waned by day 28 and was detectable only in mice immunized with Vac-M2. These results demonstrate that **F** and **G** **proteins** expressed by recombinant vaccinia viruses are the most effective **RSV** protective antigens. This study also suggests that **RSV vaccines** need only contain the F and G glycoproteins, because the immunity conferred by the other proteins is less effective and appears to wane rapidly with time.

L3 ANSWER 12 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1990:218352 BIOSIS
DN BA89:115642
TI THE 22000-KILODALTON PROTEIN OF **RESPIRATORY SYNCYTIAL** VIRUS IS A MAJOR TARGET FOR K-D-RESTRICTED CYTOTOXIC T LYMPHOCYTES FROM MICE PRIMED BY INFECTION.
AU OPENSHAW P J M; ANDERSON K; WERTZ G W; ASKONAS B A
CS DEP. MED., ST. MARY'S HOSP. MED. SCH., LONDON W2 1NY, UK.
SO J VIROL, (1990) 64 (4), 1683-1689.
CODEN: JOVIAM. ISSN: 0022-538X.
FS BA; OLD
LA English
AB Recombinant vaccinia viruses containing the 22-kilodalton protein (matrixlike or 22K protein) or phosphoprotein gene from **respiratory syncytial** virus were constructed. These recombinant viruses expressed proteins which were immunoprecipitated by appropriate **respiratory syncytial** virus antibodies and comigrated with authentic proteins produced by **respiratory**

syncytial virus infection. The new recombinant viruses (and others previously described containing the attachment glycoprotein, fusion, or nucleoprotein genes of **respiratory syncytial** virus) were used to infect target cells for cultured polyclonal cytotoxic T lymphocytes generated from the spleens of BALB/c or DBA/2 mice primed by intranasal infection with **respiratory syncytial** virus. **Respiratory syncytial** virus-specific cytotoxic T lymphocytes (CTL) showed strong Kd (but not Dd)-restricted recognition of the 22K protein. As previously reported, the fusion protein and nucleoprotein were both seen by CTL, but recognition of these proteins was comparatively weak. There was no detectable recognition of other **respiratory syncytial** virus proteins tested (including phosphoprotein). 22K protein-specific splenic memory CTL persisted for at least 11 months after infection of BALB/c mice. Priming BALB/c mice with recombinant vaccinia virus containing the 22K protein gene induced **respiratory syncytial** virus-specific memory CTL at lower levels than that previously reported following infection with a similar recombinant containing the fusion protein gene. These data identify the 22K protein as a major target antigen for **respiratory syncytial** virus-specific CTL from H-2d mice primed by **respiratory syncytial** virus infection.

L3 ANSWER 13 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1987:463264 BIOSIS
DN BA84:108704
TI CYTOTOXIC T CELL SPECIFICITY FOR **RESPIRATORY SYNCYTIAL** VIRUS PROTEINS FUSION PROTEIN IS AN IMPORTANT TARGET ANTIGEN.
AU PEMBERTON R M; CANNON M J; OPENSHAW P J M; BALL L A; WERTZ G W; ASKONAS B A
CS NATL. INST. MED. RES., MILL HILL, LONDON NW7 1AA, U.K.
SO J GEN VIROL, (1987) 68 (8), 2177-2182.
CODEN: JGVIAY. ISSN: 0022-1317.
FS BA; OLD
LA English
AB We examined the specificity of BALB/c cytotoxic T (Tc) cells for **respiratory syncytial** virus (**RSV**) components, using recombinant vaccinia viruses (VV) coding for several individual **RSV proteins**. We found that immunization with the different VVs yielded the following T memory cell populations:high levels of **RSV**-specific Tc cells were induced with the **fusion protein** VV, but low levels were induced with VV coding for the **RSV** nucleoprotein. Tc cell recognition of **attachment** glycoprotein, part of the **matrix** molecule or 1A internal **protein** was poor. While high levels of **fusion protein**-specific Tc cells were induced by the **fusion protein** VV, they showed poor cross-reactivity between the A2 and 8/60 **RSV** strains compared with Tc cells primed by **RSV** infection.

L8 ANSWER 1 OF 4 MEDLINE
AN 94223456 MEDLINE
DN 94223456 PubMed ID: 8169754
TI Treatment and prevention options for **respiratory syncytial** virus infections.
AU Levin M J
CS Department of Pediatrics, University of Colorado School of Medicine, Denver.
SO JOURNAL OF PEDIATRICS, (1994 May) 124 (5 Pt 2) S22-7. Ref: 41
Journal code: 0375410. ISSN: 0022-3476.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 199405
ED Entered STN: 19940613
Last Updated on STN: 19940613
Entered Medline: 19940527
AB Although the therapeutic antiviral agents ribavirin and amantadine ameliorate illness caused by **influenza** A and **respiratory syncytial** virus (**RSV**) in children, these agents are used infrequently because they are not cost-effective. Research currently is directed toward defining the high-risk groups for which these antiviral drugs should be used. Treatment of severe respiratory infection with specific immune globulin, either alone or in **combination** with antiviral drugs, is another therapeutic approach. Prevention of viral respiratory diseases is preferable because some lung damage occurs before the beginning of treatment, and damage resulting from the immune response may continue even after the virus is inhibited. As natural history and animal studies suggest, passive immunization can be achieved for neonates through active immunization of the mother during pregnancy. However, this approach is limited by the half-life of the transferred antibodies and the lack of antibody in premature infants. Standard immune globulin does not contain sufficient **RSV** neutralizing antibody titer to fully protect against severe **RSV** illness. Passive immunization with **RSV** immune globulin in infants and children has been shown to prevent or attenuate **RSV** in high-risk groups. Active immunization against some respiratory viruses has been achieved by administration of inactive virus (or their **subunits**), recombinant viral **antigens**, and live attenuated virus. Large trials are under way to determine the safety and immunogenicity of these **vaccines** for children in whom young age and serious underlying illness are significant barriers to primary immune response. The current research environment is suitable for the development of an immunization strategy to prevent many of the significant respiratory infections in children.

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS
AN 2000:420985 CAPLUS
DN 133:57573
TI Multivalent **immunogenic** composition containing **RSV subunit** composition and **influenza** virus preparation
IN Cates, George A.; Sambhara, Suryaprakash; Burt, David; Klein, Michel H.
PA Connaught Laboratories Limited, Can.
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000035481	A2	20000622	WO 1999-CA1194	19991216
	WO 2000035481	A3	20001026		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

	EP 1140164	A2	20011010	EP 1999-957825	19991216

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRAI	US 1998-213770	A	19981217
	WO 1999-CA1194	W	19991216

AB **Immunogenic** compns. for administration to adults, particularly to the elderly, to protect them against disease caused by infection by **respiratory syncytial** virus and by **influenza** virus comprise an immunoeffective amt. of a mixt. of purified fusion (F) protein, attachment (G) protein and matrix (M) protein of **RSV** and an immunoeffective amt. of a non-virulent **influenza** virus prepn. The components of the compn., when formulated as a **vaccine** for in vivo administration, do not impair the immunogenicity of each other. The **immunogenic** compn. may also contain an adjuvant.

L8 ANSWER 3 OF 4 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
AN 2001417166 EMBASE
TI Maternal **vaccines**.
AU Glezen W.P.
CS Dr. W.P. Glezen, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, United States
SO Primary Care - Clinics in Office Practice, (2001) 28/4 (791-806).
Refs: 85
ISSN: 0095-4543 CODEN: PRCADR
CY United States
DT Journal; General Review
FS 004 Microbiology
007 Pediatrics and Pediatric Surgery
010 Obstetrics and Gynecology
036 Health Policy, Economics and Management
037 Drug Literature Index
LA English
SL English
AB Administration of **vaccines** to women seeking prenatal care is an opportunity for preventive interventions that should not be wasted. Many of the **vaccines** considered provide protection for the pregnant woman and her offspring at a vulnerable period in their lives. Efficient use of maternal immunization could result in cost savings that will allow the extension of use of these preventative measures to areas of the world that cannot afford some of the newly developed **vaccines** for children such as the pneumococcal conjugate **vaccines**. Other maternal **vaccines** could provide protection against agents where no other alternative is likely to be available in the foreseeable future. This is true for the **subunit vaccines** for **RSV** . The **combination** of three **vaccines** that either are or could soon be available (pneumococcal polysaccharide **vaccine**, **RSV subunit vaccine**, and GBS conjugate

vaccine) have the potential to save millions of lives. As more antibiotic-resistant bacteria emerge, the need for prevention of the infections that require antibiotics will increase. As for newer **vaccines**, the cost of new antibiotics also are prohibitive for use in the majority of the world. Maternal immunization provides the opportunity to protect two with one shot effectively at reduced expense.

L8 ANSWER 4 OF 4 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
AN 2000200540 EMBASE
TI Current Research on Influenza and other Respiratory Viruses: II International Symposium.
AU Munoz F.M.; Galasso G.J.; Gwaltney J.M. Jr.; Hayden F.G.; Murphy B.; Webster R.; Wright P.; Couch R.B.
CS F.M. Munoz, Dept. of Molec. Virol./Microbiology, Baylor College of Medicine, 1 Baylor Plaza, Houston, TX 77030, United States. florm@bcm.tmc.edu
SO Antiviral Research, (2000) 46/2 (91-124).
Refs: 50
ISSN: 0166-3542 CODEN: ARSRDR
PUI S 0166-3542(00)00092-9
CY Netherlands
DT Journal; General Review
FS 004 Microbiology
037 Drug Literature Index
LA English
SL English
AB Viruses are the leading cause of respiratory infections in children and adults and are a major cause of morbidity and mortality worldwide. A variety of clinical syndromes and illness severity's result from viral respiratory infections reflecting the biologic differences of the various viruses as well as differences in host resistance. Infection with one of the viruses is the principal cause of serious diseases such as sinusitis, otitis media, bronchiolitis, pneumonia and exacerbations of chronic pulmonary conditions such as asthma. Young children, older adults, and those with underlying chronic disease are at particular risk for significant morbidity with infection. Patients with underlying immunodeficiencies, such as those infected with HIV and recipients of organ transplants, may also experience serious illness. Moreover, these persons have a reduced ability to respond adequately to **vaccine**. The epidemiology of **influenza** virus is constantly undergoing change. New **influenza** A (H3N2) strains with the potential to infect humans were discovered in 1998 to be widespread in swine in the US. Also, for the first time, an **influenza** B virus was detected in harbor seals in Europe. The human outbreak of **influenza** A (H5N1) virus that arose from infected birds in Hong Kong in 1997 was a clear example of a potential pandemic threat. In 1999, another new **influenza** A virus (H9N2) emerged in China where it caused disease in chickens; and two children in Hong Kong were discovered to be infected and ill with this virus. In addition to underscoring the need for improving and enhancing global viral surveillance, recent events have indicated a need for better training of personnel, availability of adequate laboratory facilities, and development of pandemic preparedness plans in different regions of the world. In this regard, the WHO has the roles of maintaining a global **influenza** surveillance network during interpandemic periods and of aiding countries in pandemic preparedness. Providing effective vaccination remains the principal intervention in a pandemic plan. However, the availability of newer antiviral agents effective against both **influenza** A and B (in addition to the currently available antivirals), offers the possibility of treatment of selected cases and use of short-term prophylaxis during a pandemic, particularly in regions of the world where time for development

and use of **vaccines** will not be feasible. The possibility of treating **influenza** has increased the demand for virologic diagnosis. Although viral culture remains essential for diagnostic and epidemiologic purposes, rapid diagnostic tests based on **antigen** detection that are specific and relatively sensitive for identifying both **influenza** A and B viruses are now available for use in the clinical setting. Genome amplification, by PCR and RT-PCR, has the greatest sensitivity but is more technically demanding than the widely available immunofluorescence and ELISA assays. A new method of diagnosis currently showing promise is TaqMan.RTM. PCR, a real time, quantitative PCR technique that offers rapid results, good sensitivity, and is less prone to contamination. Preliminary studies have shown promising results for the determination of viral loads in cystic fibrosis patients. Genome amplification methods are also useful for the study of the epidemiology of respiratory viruses. Fragments of RNA recovered from victims of the 1918 **influenza** pandemic with the use of RT-PCR have shown the presence of avian-like HA and NA sequences but a clear mammalian origin phylogenetically, suggesting that the 1918 **influenza** virus was an avian H1N1 virus that underwent mammalian adaptation. Although reported by others, pantropism and neurotropism were not confirmed by RT PCR assays of other organs at the Armed Forces Institute of Pathology in the USA. Respiratory viruses play a significant role in the pathogenesis, clinical course, and outcome of upper respiratory tract illnesses such as sinusitis and otitis media. **Respiratory syncytial** virus, rhinovirus, parainfluenza viruses 1, 2, and 3, and adenovirus are important causes of these illnesses in children and adults during the winter months. Adenoviruses are also notable as an important cause of disease that can affect many different organ systems. Viral replication in the respiratory tract results in the stimulation of multiple pathways for inflammation including cytokines and inflammatory mediators that lead to mucocilliary damage, dysfunction, and clinical symptoms. The use of **combination** anti-inflammatory and antiviral (interferon) therapy was of benefit in treatment of rhinovirus common colds. No benefit has been demonstrated with the use of steroids in viral respiratory illnesses, other than for croup in children. Pleconaril, a compound inhibiting receptor binding of picornaviruses, was beneficial in the treatment of acute rhinovirus infections in adults and adolescents and in experimental respiratory Coxsackie virus A21 infection in volunteers. AG7088, a 3C preotease inhibitor, was shown to reduce infections or severity of illness when administered before or early in the course of infection. The most significant breakthrough an antiviral treatment this past year was approval of the neuraminidase inhibitors (NI) zanamavir and oseltamivir. Both agents were approved in 1999 in the USA and many European and South American countries for the treatment of **influenza** A and B infections. They reduce the severity and duration of symptoms of **influenza** when administered within the first 2 days after illness onset. They are safe and generally well tolerated and the development of resistance is infrequent. Resistant viruses occur late in about 1% of infected subjects by either a mutation in the binding site of NA or a mutation in the HA that reduces binding affinity and the need for NA activity. Alternatively, resistance may be seen where the balance of HA binding affinity and NA eluting activity of viruses without mutations is such that sufficient NA activity remains in the presence of drug. So far, no clinical deterioration has been associated with the development of resistance, and resistant viruses appear to be less virulent in animal and models. The two potential pandemic viruses that have recently emerged, **influenza** A H5N1 and H9N2 are inhibited in vitro, and in animals by the NI drugs. In clinical studies, oseltamivir was shown to prevent the spread of **influenza** A and B to household contacts when administered after exposure to an ill family member. It also effectively prevented clinical **influenza** in vaccinated frail elderly

populations when administered as long-term prophylaxis in the nursing home setting and, in doing so, provided additional protection to that provided by vaccination alone. Approval of these agents for prophylactic use against **influenza** A and B infections should occur soon. Newer but similar compounds are also under development; RWJ-270201 is a novel NI with a unique cyclopentane ring structure that shows potent activity against **influenza** A and B in vitro and in animal models. It has been well tolerated and shown to have an antiviral effect in human challenge studies. The most important intervention for the control of viral infections and their complications is prevention through immunization. Significant advances have occurred recently in the development and use of antiviral **vaccines**. The live attenuated cold-adapted **influenza vaccine** is now updated annually to match the FDA recommendations for the trivalent inactivated **vaccine** and is produced consistently to a viral titer that, when administered intranasally to children or adults, has resulted in immunity to the **vaccine** strain and to drift variants. An ongoing study seeks to determine whether universal immunization of young children with the cold-adapted **vaccine** will significantly reduce **influenza** in a community. Methods to improve on the currently available inactivated **influenza vaccine** in high risk groups such as the elderly, and for use before exposure to a pandemic virus are under investigation. The immunogenicity of the currently available trivalent inactivated **vaccine** was enhanced by supplementation with recombinant NA (rNA) in animal models and in early studies of human experimental infection. The supplemented **vaccine** was safe, **immunogenic**, and followed by decreased symptomatology and viral shedding. An MF-59 adjuvanted **influenza** A (H5N3) **vaccine** was more **immunogenic** in naive volunteers than standard aqueous **vaccine**. **Vaccines** to augment CTL memory T cells to enhance protection against pandemic and interpandemic **influenza** virus infection, and production of attenuated **vaccine** strains via reverse genetics to modulate interferon sensitivity are other new **vaccine** options. Application of reverse genetics to production of **vaccines** for **RSV** and PIV is permitting genotypic and phenotypic manipulations with relative ease. Early results have provided promising new candidate **vaccines** . Preliminary results with cold adapted-temperature sensitive **RSV** and PIV live attenuated **vaccines** in young children indicate these **vaccines** are safe and **immunogenic** in this population. As an alternative, a novel recombinant **RSV** **subunit vaccine**, BBG2Na, was shown to be **immunogenic** and protective in mice, and to be safe and **immunogenic** in **RSV** seropositive healthy adults. Parallel studies to define the immune correlates of **RSV** disease and the factors contributing to the severity of disease in younger infants are ongoing. The identification of T-cell epitopes in **RSV** and clarification of their role in immunopathogenesis and as **vaccine** targets is an important effort.

L10 ANSWER 1 OF 40 MEDLINE
TI **Influenza** virosomes are an efficient delivery system for **respiratory syncytial** virus-F **antigen** inducing humoral and cell-mediated immunity.
SO VACCINE, (2002 Oct 4) 20 (29-30) 3436-42.
Journal code: 8406899. ISSN: 0264-410X.
AU Cusi M G; Żurbriggen R; Correale P; Valassina M; Terrosi C; Pergola L; Valensin P E; Gluck R

L10 ANSWER 2 OF 40 MEDLINE
TI Development of **vaccines** against common colds.
SO BRITISH MEDICAL BULLETIN, (2002) 62 99-111. Ref: 41
Journal code: 0376542. ISSN: 0007-1420.
AU Olszewska Wieslawa; Zambon Maria; Openshaw Peter J M

L10 ANSWER 3 OF 40 MEDLINE
TI Prevention of otitis media by vaccination.
SO DRUGS, (2002) 62 (10) 1441-5. Ref: 30
Journal code: 7600076. ISSN: 0012-6667.
AU Russell Fiona; Mulholland Kim

L10 ANSWER 4 OF 40 MEDLINE
TI Etiology of acute lower respiratory tract infection in children at Srinagarind Hospital, Khon Kaen, Thailand.
SO SOUTHEAST ASIAN JOURNAL OF TROPICAL MEDICINE AND PUBLIC HEALTH, (2001 Sep) 32 (3) 513-9.
Journal code: 0266303. ISSN: 0125-1562.
AU Ekalaksananan T; Pientong C; Kongyingyoes B; Pairojkul S; Teeratakulpisarn J; Heng S

L10 ANSWER 5 OF 40 MEDLINE
TI Pre- and in-hospital management of community-acquired pneumonia in southern France, 1998-99.
SO EUROPEAN JOURNAL OF CLINICAL MICROBIOLOGY AND INFECTIOUS DISEASES, (2001 Nov) 20 (11) 770-8.
Journal code: 8804297. ISSN: 0934-9723.
AU Laurichesse H; Sotto A; Bonnet E; Abraham B; Neau D; Badiaga S; Gaillat J; Fabbro-Peray P

L10 ANSWER 6 OF 40 MEDLINE
TI Progress in the prevention of otitis media through immunization.
SO Otol Neurotol, (2002 Jan) 23 (1) 1-2.
Journal code: 100961504. ISSN: 1531-7129.
AU Snow James B Jr

L10 ANSWER 7 OF 40 MEDLINE
TI A **combination vaccine** confers full protection against co-infections with **influenza**, herpes simplex and **respiratory syncytial** viruses.
SO VACCINE, (2001 Nov 12) 20 (3-4) 538-44.
Journal code: 8406899. ISSN: 0264-410X.
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L10 ANSWER 8 OF 40 MEDLINE
TI Prevention and treatment of **respiratory syncytial** virus and parainfluenza viruses in immunocompromised patients.
SO AMERICAN JOURNAL OF MEDICINE, (1997 Mar 17) 102 (3A) 61-70; discussion 75-6. Ref: 86
Journal code: 0267200. ISSN: 0002-9343.
AU Englund J A; Piedra P A; Whimbey E

L10 ANSWER 9 OF 40 MEDLINE
TI Respiratory viral infections in the elderly.
SO ANTIVIRAL RESEARCH, (1999 Dec 15) 44 (2) 79-102. Ref: 234
Journal code: 8109699. ISSN: 0166-3542.
AU Treanor J; Falsey A

L10 ANSWER 10 OF 40 MEDLINE
TI BERNA: a century of immunobiological innovation.
SO VACCINE, (1999 Oct 1) 17 Suppl 2 S1-5.
Journal code: 8406899. ISSN: 0264-410X.
AU Cryz S J

L10 ANSWER 11 OF 40 MEDLINE
TI Pneumonia in residents of long-term care facilities: epidemiology, etiology, management, and prevention.
SO AMERICAN JOURNAL OF MEDICINE, (1998 Oct) 105 (4) 319-30. Ref: 134
Journal code: 0267200. ISSN: 0002-9343.
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L10 ANSWER 12 OF 40 MEDLINE
TI Acute respiratory infections (ARI) in children: prospects for prevention.
SO VACCINE, (1998 Oct) 16 (16) 1582-8.
Journal code: 8406899. ISSN: 0264-410X.
AU Monto A S; Lehmann D

L10 ANSWER 13 OF 40 MEDLINE
TI **Combination vaccines** for diphtheria, tetanus, pertussis, and Haemophilus **influenzae** type b.
SO ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, (1995 May 31) 754 108-13.
Journal code: 7506858. ISSN: 0077-8923.
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L10 ANSWER 14 OF 40 MEDLINE
TI Lower respiratory viral infections in immunocompetent children.
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Journal code: 8803391. ISSN: 0884-9404.
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L10 ANSWER 15 OF 40 MEDLINE
TI [Acute parotitis in children previously vaccinated against mumps]. Akut parotitis mumps vedooltasban reszesult gyermekekben.
SO ORVOSI HETILAP, (1994 Feb 6) 135 (6) 287-90.
Journal code: 0376412. ISSN: 0030-6002.
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L10 ANSWER 16 OF 40 MEDLINE
TI Vaccination against acute respiratory virus infections and measles in man.
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Journal code: 8002742. ISSN: 0171-2985.
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L10 ANSWER 17 OF 40 MEDLINE
TI Immunisation practice in developed countries.
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Journal code: 2985213R. ISSN: 0140-6736.
Report No.: CPFH-26602cr990; POP-00192510.
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L10 ANSWER 18 OF 40 MEDLINE
TI Detection of multiple viral agents in nasopharyngeal specimens yielding

respiratory syncytial virus (**RSV**). An assessment of diagnostic strategy and clinical significance.
SO DIAGNOSTIC MICROBIOLOGY AND INFECTIOUS DISEASE, (1989 Jul-Aug) 12 (4) 327-32.
Journal code: 8305899. ISSN: 0732-8893.
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L10 ANSWER 19 OF 40 CAPLUS COPYRIGHT 2003 ACS
TI Oral solid dose **vaccine**
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
IN Vande-Velde, Vincent

L10 ANSWER 20 OF 40 CAPLUS COPYRIGHT 2003 ACS
TI **Vaccine** compositions comprising heat shock proteins or .alpha.2-macroglobulin, antigens, and saponins
SO PCT Int. Appl., 93 pp.
CODEN: PIXXD2
IN Armen, Garo H.

L10 ANSWER 21 OF 40 CAPLUS COPYRIGHT 2003 ACS
TI Genetic **vaccines** that mimic natural viral infection
SO PCT Int. Appl., 142 pp.
CODEN: PIXXD2
IN Wang, Danher

L10 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2003 ACS
TI **Vaccines** containing polyoxyethylene sorbitan ester surfactant adjuvants
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
IN Friede, Martin; Hermand, Philippe; Henerickx, Veronique

L10 ANSWER 23 OF 40 CAPLUS COPYRIGHT 2003 ACS
TI Attenuated human-bovine chimeric parainfluenza virus **vaccines**
SO PCT Int. Appl., 150 pp.
CODEN: PIXXD2
IN Schmidt, Alexander C.; Skiadopoulos, Mario H.; Collins, Peter L.; Murphy, Brian R.; Bailly, Jane E.; Durbin, Anna P.

L10 ANSWER 24 OF 40 CAPLUS COPYRIGHT 2003 ACS
TI **Vaccine**
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
IN Deschamps, Marguerite

L10 ANSWER 25 OF 40 CAPLUS COPYRIGHT 2003 ACS
TI **Combination vaccines** containing Streptococcus pneumoniae polysaccharide conjugates and a Th1-stimulating **respiratory syncytial** virus antigen
SO PCT Int. Appl., 66 pp.
CODEN: PIXXD2
IN Deschamps, Marguerite; Laferriere, Craig Antony Joseph

L10 ANSWER 26 OF 40 CAPLUS COPYRIGHT 2003 ACS
TI Adjuvant compositions
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
IN Friede, Martin; Hermand, Philippe

L10 ANSWER 27 OF 40 CAPLUS COPYRIGHT 2003 ACS

TI **Vaccines** for nontypeable Haemophilus **influenzae**
SO U.S., 24 pp., Cont.-in-part of U.S. Ser. No. 320, 971, abandoned.
CODEN: USXXAM
IN Green, Bruce A.; Zlotnick, Gary W.

L10 ANSWER 28 OF 40 CAPLUS COPYRIGHT 2003 ACS
TI Improved virus **vaccines**
SO PCT Int. Appl., 44 pp.
CODEN: PIXXD2
IN Volvovitz, Franklin

L10 ANSWER 29 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Virus **vaccines**.
SO Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 2, 1999) Vol. 1228, No. 1, pp. No pagination. e-file.
ISSN: 0098-1133.
AU Volvovitz, Franklin (1)

L10 ANSWER 30 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI THE PRESENT AND FUTURE OF VACCINATION.
SO ELEVENTH CONGRESS OF THE HUNGARIAN SOCIETY FOR MICROBIOLOGY AND THE FOUNDATION OF THE HUNGARIAN SOCIETY FOR MICROBIOLOGY, BUDAPEST, HUNGARY, AUGUST 22-24, 1991. ACTA MICROBIOL HUNG. (1991) 38 (3-4), 166-167.
CODEN: AMHUEF. ISSN: 0231-4622.
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L10 ANSWER 31 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI **Combination vaccines**: Practical considerations for public health and private practice.
SO Pediatric Infectious Disease Journal, (2001) 20/11 SUPPL. (S19-S22).
Refs: 17
ISSN: 0891-3668 CODEN: PIDJEV
AU Glode M.P.

L10 ANSWER 32 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI [Childhood vaccination in 1999].
LA VACCINATIOND E L'ENFANT EN 1999.
SO Revue Medicale de Bruxelles, (1999) 20/4 (A317-A320).
Refs: 9
ISSN: 0035-3639 CODEN: RMBXA7
AU Levy J.

L10 ANSWER 33 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI Viral pneumonia in children.
SO Seminars in Pediatric Infectious Diseases, (1998) 9/3 (217-233).
Refs: 259
ISSN: 1045-1870 CODEN: SPIDFJ
AU Henrickson K.J.

L10 ANSWER 34 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI **Combination** live respiratory virus **vaccines**.
SO Annals of the New York Academy of Sciences, (1995) 754/- (351-355).
ISSN: 0077-8923 CODEN: ANYAA
AU Clements M.L.

L10 ANSWER 35 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI Present and future challenges of immunizations on the health of our patients.
SO Pediatric Infectious Disease Journal, (1995) 14/5 (445-449).
ISSN: 0891-3668 CODEN: PIDJEV
AU Gershon A.A.

L10 ANSWER 36 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI Comparison of rapid detection methods for influenza A virus and their value in health-care management of institutionalized geriatric patients.
SO Journal of Clinical Microbiology, (1994) 32/1 (70-74).
ISSN: 0095-1137 CODEN: JCMIDW
AU Leonardi G.P.; Leib H.; Birkhead G.S.; Smith C.; Costello P.; Conron W.

L10 ANSWER 37 OF 40 SCISEARCH COPYRIGHT 2003 ISI (R)
TI Production of recombinant subunit **vaccines**: protein **immunogens**, live delivery systems and nucleic acid **vaccines**
SO JOURNAL OF BIOTECHNOLOGY, (30 JUL 1999) Vol. 73, No. 1, pp. 1-33.
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.
ISSN: 0168-1656.
AU Liljeqvist S; Stahl S (Reprint)

L10 ANSWER 38 OF 40 SCISEARCH COPYRIGHT 2003 ISI (R)
TI Addressing the challenges to immunization practice with an economic algorithm for **vaccine** selection
SO VACCINE, (NOV 1998) Vol. 16, No. 19, pp. 1885-1897.
Publisher: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND.
ISSN: 0264-410X.
AU Weniger B G (Reprint); Chen R T; Jacobson S H; Sewell E C; Deuson R; Livengood J R; Orenstein W A

L10 ANSWER 39 OF 40 SCISEARCH COPYRIGHT 2003 ISI (R)
TI The humoral immune response in cattle after immunization with a **multivalent** IBR/PI3 Pasteurella haemolytica A1 leukotoxin **vaccine**
SO ONDERSTEPOORT JOURNAL OF VETERINARY RESEARCH, (SEP 1997) Vol. 64, No. 3, pp. 205-212.
Publisher: ONDERSTEPOORT VETERINARY INST, AGRICULTURAL RESEARCH COUNCIL, PRIVATE BAG X5, ONDERSTEPOORT 0110, SOUTH AFRICA.
ISSN: 0030-2465.
AU Odendaal M W (Reprint); Morris S; DuPreez E; Aitchison H

L10 ANSWER 40 OF 40 SCISEARCH COPYRIGHT 2003 ISI (R)
TI PROTECTIVE EFFICACY OF **COMBINED** LIVE INTRANASAL AND INACTIVATED **INFLUENZA**-A VIRUS-**VACCINES** IN THE ELDERLY
SO ANNALS OF INTERNAL MEDICINE, (15 OCT 1992) Vol. 117, No. 8, pp. 625-633.
ISSN: 0003-4819.
AU TREANOR J J (Reprint); MATTISON H R; DUMYATI G; YINNON A; ERB S; OBRIEN D; DOLIN R; BETTS R F

L10 ANSWER 8 OF 40 MEDLINE
AN 2000326127 MEDLINE
DN 20326127 PubMed ID: 10868145
TI Prevention and treatment of **respiratory syncytial** virus and parainfluenza viruses in immunocompromised patients.
AU Englund J A; Piedra P A; Whimbey E
CS Department of Microbiology and Immunology, Baylor College of Medicine, Houston, Texas 77030, USA.
SO AMERICAN JOURNAL OF MEDICINE, (1997 Mar 17) 102 (3A) 61-70; discussion 75-6. Ref: 86
Journal code: 0267200. ISSN: 0002-9343.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 200007
ED Entered STN: 20000720
Last Updated on STN: 20000720
Entered Medline: 20000712
AB Immunocompromised patients are vulnerable to severe infections due to **respiratory syncytial** virus (**RSV**) and parainfluenza viruses (PIV), and therefore prevention and treatment strategies must be considered. The prevention of **RSV** disease with high-titer **RSV**-specific immune globulin has been documented in very young children but has not been systematically studied in high-risk adults. **Vaccines** against **RSV** and PIV are under development, but their use in immunocompromised patients is problematic. Ribavirin aerosol therapy is licensed for the treatment of **RSV** in pediatric patients and has also been used to treat **RSV** disease in adults and PIV disease in severely immunocompromised children and adults. Uncontrolled trials show that early therapy with ribavirin aerosol may be beneficial, but treatment of pneumonia in patients with respiratory failure is rarely successful. Other potential treatments for **RSV** or PIV disease include high-dose, short-duration ribavirin therapy; **combined** immunoglobulin and ribavirin therapy; polyclonal and monoclonal antibodies; and, potentially, immunomodulators.
L10 ANSWER 9 OF 40 MEDLINE
AN 2000132743 MEDLINE
DN 20132743 PubMed ID: 10669259
TI Respiratory viral infections in the elderly.
AU Treanor J; Falsey A
CS Infectious Disease Unit, University of Rochester School of Medicine, NY 14642, USA.. john_treanor@urmc.rochester.edu
SO ANTIVIRAL RESEARCH, (1999 Dec 15) 44 (2) 79-102. Ref: 234
Journal code: 8109699. ISSN: 0166-3542.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LA English
FS Priority Journals
EM 200003
ED Entered STN: 20000327
Last Updated on STN: 20010813
Entered Medline: 20000316
AB Viral respiratory infections represent a significant challenge for those interested in improving the health of the elderly. **Influenza** continues to result in a large burden of excess morbidity and mortality.

Two effective measures, inactivated **influenza vaccine**, and the antiviral drugs rimantadine and amantadine, are currently available for control of this disease. Inactivated **vaccine** should be given yearly to all of those over the age of 65, as well as younger individuals with high-risk medical conditions and individuals delivering care to such persons. Live, intranasally administered attenuated **influenza vaccines** are also in development, and may be useful in **combination** with inactivated **vaccine** in the elderly. The antiviral drugs amantadine and rimantadine are effective in the treatment and prevention of **influenza** A, although rimantadine is associated with fewer side-effects. Recently, the inhaled neuraminidase inhibitor zanamivir, which is active against both **influenza** A and B viruses, was licensed for use in uncomplicated **influenza**. The role of this drug in treatment and prevention of **influenza** in the elderly remains to be determined. Additional neuraminidase inhibitors are also being developed. In addition, to **influenza**, respiratory infections with **respiratory syncytial** virus, parainfluenza virus, rhinovirus, and coronavirus have been identified as potential problems in the elderly. With increasing attention, it is probable that the impact of these infections in this age group will be more extensively documented. Understanding of the **immunology** and pathogenesis of these infections in elderly adults is in its infancy, and considerable additional work will need to be performed towards development of effective control measures.

L10 ANSWER 24 OF 40 CAPLUS COPYRIGHT 2003 ACS
AN 2000:756547 CAPLUS
DN 133:334038
TI **Vaccine**
IN Deschamps, Marguerite
PA Smithkline Beecham Biologicals S. A., Belg.
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000062802	A2	20001026	WO 2000-EP3516	20000417
	WO 2000062802	A3	20010111		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1171158	A2	20020116	EP 2000-926986	20000417
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	GB 1999-9077	A	19990420		
	GB 1999-15106	A	19990628		
	WO 2000-EP3516	W	20000417		

AB The invention relates to a **vaccine** formulation comprising a **Respiratory Syncytial** Virus (**RSV**) antigen and an immunostimulatory CpG oligonucleotide, to methods of prepg. the **vaccine** formulation and to its use in medicine. Further antigens may be included to provide new **combination vaccines** for administration to children, to adults and to the elderly.

L10 ANSWER 27 OF 40 CAPLUS COPYRIGHT 2003 ACS
AN 1997:128048 CAPLUS
DN 126:211022
TI **Vaccines** for nontypeable Haemophilus **influenzae**
IN Green, Bruce A.; Zlotnick, Gary W.
PA Praxis Biologics, Inc., USA
SO U.S., 24 pp., Cont.-in-part of U.S. Ser. No. 320, 971, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5601831	A	19970211	US 1990-491466	19900309
	CA 2047681	AA	19900910	CA 1990-2047681	19900309
	EP 606921	A1	19940720	EP 1994-100492	19900309
	EP 606921	B1	20000802		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
	ES 2063965	T3	19950116	ES 1990-905112	19900309
	AT 195076	E	20000815	AT 1994-100492	19900309
	US 5780601	A	19980714	US 1995-447653	19950523
	US 5955580	A	19990921	US 1995-449406	19950523
	US 6420134	B1	20020716	US 1995-448097	19950523
PRAI	US 1989-320971	B2	19890309		
	EP 1990-905112	A3	19900309		
	US 1990-491466	A3	19900309		

AB Protein "e" of H. influenzae, a lipoprotein of approx. 28,000 daltons, has been purified and sequenced. Protein "e" and peptides or proteins having a shared epitope, can be used to vaccinate against non-typable (and typable) H. influenzae and to prevent otitis media caused by H. influenzae. For this purpose, protein "e" or derivs. thereof can be produced in native, synthetic or recombinant forms and can be administered alone or in conjunction with other **antigens** of H. **influenzae**. Protein "e" can also be used in **multivalent vaccines** designed for H. **influenzae** and one or more other infectious organisms. Protein "e" was isolated from Haemophilus cell envelopes and characterized, polyclonal anti-protein "e" antiserum and monoclonal anti-protein "e" antibodies were prepd., protein "e" gene was isolated and nucleotide sequence was detd. and mol. cloning of the gene was performed, bactericidal activity of **vaccine** comprising protein "e" subunit was studied, and synergy of anti-protein "e" with other antibodies were demonstrated.

L10 ANSWER 29 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 2000:291906 BIOSIS
DN PREV200000291906
TI Virus **vaccines**.
AU Volvovitz, Franklin (1)
CS (1) New Haven, CT USA
ASSIGNEE: Protein Sciences Corporation, Meriden, CT, USA
PI US 5976552 November 02, 1999
SO Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 2, 1999) Vol. 1228, No. 1, pp. No pagination. e-file.
ISSN: 0098-1133.
DT Patent
LA English
AB Improved mammalian virus **vaccines** are **combinations** that contain an **immunogenic** amount of inactivated virus, such as **influenza** virus, Herpes varicella virus, measles virus, Epstein Barr virus, **respiratory syncytial** virus, parainfluenza 3, Herpes simplex type 1 virus, and Herpes simplex type 2 virus, and an

immunogenic amount of a purified recombinant envelope protein from the virus, or a fragment or precursor of the protein. Alternatively, they contain either inactivated virus and/or envelope protein **antigens** and an adjuvant such as granulocyte-microphage colony stimulating factor. One embodiment of an **influenza vaccine** is prepared by **combining** inactivated virus, preferably three strains of the virus, and hemagglutinin, preferably a **combination** of respective hemagglutinins for each of the three strains present. In another embodiment, an **influenza vaccine** is prepared by **combining** inactivated virus, again preferably three strains of the virus, and neuraminidase, preferably a **combination** of respective neuraminidase for each of the three strains present. In a third embodiment, the **vaccine** contains inactivated virus and both hemagglutinin and neuraminidase, preferably using three strains of each. Granulocyte-macrophage colony stimulating factor is, optionally, added to these embodiments.

L10 ANSWER 31 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
AN 2001402759 EMBASE
TI **Combination vaccines**: Practical considerations for public health and private practice.
AU Glode M.P.
CS Dr. M.P. Glode, Department of Pediatrics, Children's Hospital, 1056 E. 19th Avenue, Denver, CO 80218, United States. glode.mary@tchden.org
SO Pediatric Infectious Disease Journal, (2001) 20/11 SUPPL. (S19-S22). Refs: 17
ISSN: 0891-3668 CODEN: PIDJEV
CY United States
DT Journal; Article
FS 007 Pediatrics and Pediatric Surgery
017 Public Health, Social Medicine and Epidemiology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
LA English
SL English
AB Background. Although the current immunization schedule for children requires as many as four or five injections at a single visit, both parents and health care providers hesitate to administer more than two or three simultaneous injections. Therefore new **combination vaccines** that include multiple unrelated antigens are needed. Methods. Individuals from the Immunization Division of the Colorado State Department of Health and pediatricians in private practice in Denver, CO, were interviewed and asked about incorporating new **combination vaccines** into their practice. Results. At a state health department level the transition to **combination vaccines** will likely require reprioritizing of public health resources. In addition state health officials are important information resources for public and private providers, as well as for the community. At the level of the private provider **combination vaccines** hold promise for simplifying the immunization schedule, but successful implementation will require education and guidance on how best to integrate the new **combination** into practice. Conclusions. **Combination vaccines** are the immediate solution to the addition of new childhood **vaccines** and will alleviate the concern of parents and physicians regarding the trauma related to multiple injections at a single visit.

L10 ANSWER 34 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
AN 95299491 EMBASE
DN 1995299491
TI **Combination** live respiratory virus **vaccines**.
AU Clements M.L.
CS Center for Immunization Research, Johns Hopkins University, School of

Hygiene and Public Health, 624 N Broadway, Hampton House 225,Baltimore, MD 21205, United States
SO Annals of the New York Academy of Sciences, (1995) 754/- (351-355).
ISSN: 0077-8923 CODEN: ANYAA
CY United States
DT Journal; Conference Article
FS 004 Microbiology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
LA English